

# Notice of Preparation (NOP) of a Draft Programmatic Environmental Impact Report for the Light Brown Apple Moth Eradication Program

Date: July 21, 2008

To: State Clearinghouse; Responsible, Trustee, and Interested Agencies; and  
other Interested Organizations and Individuals

The California Department of Food and Agriculture (Department) as Lead Agency under the California Environmental Quality Act (CEQA) will prepare a Programmatic Environmental Impact Report (PEIR) for the eradication of the light brown apple moth (LBAM) (*Epiphyas postvittana*). We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed Project. Your agency may need to use the PEIR prepared by the Department when considering any necessary permit or other approval for the Project. Interested parties and individuals are invited also to comment on alternatives to, concerns with, and environmental issues or potential effects of the Project.

## **Public Scoping Meetings**

Two additional public meetings (in addition to the four meetings held February 20-28, 2008) will be held to receive agency and public comment on the scope of analysis and PEIR content for the proposed Project in the expanded project area. Dates/time and locations<sup>1</sup>:

### **Sacramento:**

Tuesday, August 5, 2008  
3:00 pm - 5:00 pm  
California Department of Food and Agriculture  
1220 N Street (Auditorium)  
Sacramento, CA 95814

### **Los Angeles:**

Monday, August 4, 2008  
6:00 pm - 8:00 pm  
Los Angeles Valley College  
Monarch Hall ([map attached](#))  
5800 Fulton Avenue  
Valley Glen, CA 91401

Due to the time limits mandated by State law, **your written response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.** Please send your response to: Jim Rains, Staff Environmental Scientist, California Department of Food and Agriculture, 1220 N Street, Sacramento, CA 95814; fax (916) 654-1018; or, email [jrains@cdfa.ca.gov](mailto:jrains@cdfa.ca.gov). Project files will be maintained at this location.

*original signed by*

*7/21/08*

---

Jim Rains  
California Department of Food and Agriculture  
Plant Health & Pest Prevention Services

---

Date

---

<sup>1</sup> If special accommodation is required, please contact Jim Rains at (916) 654-0317 or by email at [jrains@cdfa.ca.gov](mailto:jrains@cdfa.ca.gov) by July 25, 2008 to enable the Department to secure the needed services.

# **LIGHT BROWN APPLE MOTH ERADICATION PROGRAM PROJECT DESCRIPTION**

## **Summary**

The California Department of Food and Agriculture (Department) is preparing a Programmatic EIR to evaluate effects of implementation of eradication strategies and methods (Project) for the light brown apple moth (LBAM) (*Epiphyas postvittana*) in portions of the state where infestations have been identified by the trapping program to date. The LBAM feeds on plants in genera containing 2,042 different species, including many agricultural, horticultural and forest species of great economic and ecological value. The Department is working closely with the United States Department of Agriculture (USDA) and a Technical Working Group to deploy the most effective strategy and methods to achieve the overall goal of eradication of LBAM from California. Preliminary actions were undertaken as emergency actions in 2007 in the Monterey-Santa Cruz area. Subsequent eradication activities are scheduled for 2008-2009 in the currently infested counties and in any additional counties within the state where subsequent infestations are found.

## **Project Location**

The immediate project area is located in the following 12 counties of the state where infestations occur as of July 17, 2008: Alameda, Contra Costa, San Francisco, Marin, Sonoma, Solano, San Mateo, Santa Clara, San Benito, Monterey, Santa Cruz and Santa Barbara. The areas proposed for eradication activities cover approximately 900 square miles. Within the 12 counties, eradication activities would be focused in the areas with the greatest infestation problems. Small and isolated infestations will be treated when practical.

Since the release of the original Notice of Preparation, the infestation has spread from nine counties to 12. Based on this new information, the Department decided to expand the project area description for the PEIR to include all portions of the state in which climatic conditions are suitable to the LBAM. Without a diapause (resting) stage, LBAM can only survive in areas where it can continuously breed and where sufficient hosts are available. Areas not expected to harbor LBAM are desert areas with sparse vegetation, including most of Imperial County and the eastern portions of San Bernardino, Riverside, Los Angeles, Kern and Inyo counties, and areas of extensive cold, including elevations above 5000 feet in the Sierra Nevada Mountains and the eastern portions of Modoc and Lassen counties. The threat is greatest along the coast from the Oregon border to the Mexican border. LBAM is expected to survive in the central valley and foothills below 5000 feet. This expanded project area is shown in Figure One, Program Area Location.



**ENTRIX**  
Environmental and Natural Resource  
Management Consultants

Light Brown Apple Moth Eradication Program

**FIGURE ONE**  
PROGRAM AREA LOCATION

## **Background**

The Department was notified by a retired professor and collector on February 6, 2007, that a moth expert in Australia had identified LBAM from collections made in 2006 at a site in Alameda County. The Department initiated a pheromone-baited trapping project in Alameda and Contra Costa counties that resulted in the finding of additional moths. On April 20, 2007, the Department issued a quarantine of at least 182-square miles in Alameda, Contra Costa, San Francisco, Marin and Santa Clara counties. The USDA issued a federal quarantine order on May 2, 2007, requiring trapping, inspection and certification of all nursery stock and host commodities from the quarantine area in eight counties. Today, the quarantine area has expanded to cover 12 counties (Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano and Sonoma).

Since March 2007, more than 51,300 traps have been placed throughout the state and approximately 29,400 moths have been confirmed as LBAM. However, most of the captures are from traps located in two specific geographic areas: (1) southern Santa Cruz and northern Monterey counties (65 percent) and contiguous portions of northwest Alameda, western Contra Costa and northern San Francisco counties (32 percent). The remaining three percent were mostly single or 2-10 moth captures in Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, San Benito, Santa Barbara and Los Angeles counties.

In May 2007, a group of international scientific experts on LBAM was convened by Animal and Plant Health Inspection Service (APHIS) to provide recommendations on short- and long-term actions to contain, control and eradicate LBAM in California to prevent the spread of the pest to other states and countries. This Technical Working Group recommended a strategy to first contain and eradicate LBAM from the outer edges of its range and then second to eliminate the core population centers. Based on the recommendations of USDA and the Technical Working Group, the Department developed a reasonable range of alternative control and eradication measures and created an action plan.

Beginning in June 2007, the Department and APHIS started emergency treatment of isolated populations with LBAM mating disruption techniques, namely ground applications of a biologically-based pesticide and the placement of pheromone-treated twist ties. Growing populations of LBAM in the area from Salinas River south to the Monterey Peninsula required aerial treatment with a microencapsulated pheromone in September and again in October 2007. Aerial treatment was also applied in November 2007 over portions of northern Monterey County and over Santa Cruz.

The USDA has completed environmental assessments (EAs) in the Santa Cruz-Monterey-Seaside areas in the June-September 2007 period that concluded there were no anticipated adverse effects to humans, domestic or nontarget animals, or to the environment from the use of the pheromones. The economic analysis included in the USDA's *Treatment Program for Light Brown Apple Moth in California, Environmental Assessment, February 2008* determined that LBAM could become established throughout California based on climate modeling without an integrated eradication plan, and implementation of the program using all of the planned methods is not expected to result in either cumulative impacts or direct or indirect adverse effects to human health and the environment. However, the level of public controversy over the project, along with the state legislation authorizing funds for emergency treatment (SB 556), require the Department to prepare an Environmental Impact Report under CEQA for the long-term program to eradicate LBAM. Consultants have been retained by the Department to prepare ecological and human health risk assessments and the PEIR.

## **Proposed Project**

Because the LBAM is a new pest to the North American Continent that affects a broad range of plants (as many as 2,042 plants, including native plants, forest species, agronomically important crops and ornamentals), both APHIS and the Department have taken immediate action to eradicate LBAM from California to prevent its spread to susceptible host plants throughout the United States and neighboring Mexico and Canada. The pest is prolific, and the number of generations produced in a growing season varies from one to more than four (depending on environmental conditions). Because the LBAM infestations are local or regional, the overall strategy is to eradicate the pest rather than control it. A final Action Plan was approved on February 8, 2008, and updated June 24, 2008, with additional updates in process.

The CEQA scoping process for the Light Brown Apple Moth Eradication Program (LBAM) PEIR has been revised to reflect changes in the implementation of the program and the area to be considered for future treatment. On June 20, 2008, the Secretary of the Department of Food and Agriculture announced that the primary strategy for eradicating the LBAM was changed from aerial treatment with pheromone to the release of sterile male LBAM to disrupt the mating population. In addition, the infestation has spread from nine counties to 12. Based on this new information, the Department decided to expand the project area description for the PEIR to include all portions of the state in which climatic conditions are suitable to the LBAM.

Key components of the proposed Project are summarized below:

A systems approach over several years using multiple tools is planned that uses sterile insect technology, mating disruption pheromone, biological control and/or insecticide treatments depending upon conditions at specific locations.

1. **Sterile insect technology** is being developed in New Zealand, Australia and California, and is to be available for initial implementation in California beginning in 2009 (limited releases) and in 2011 on a large scale. This could be used at any infested area.
2. The **mating disruption pheromone** attracts the male LBAMs and prevents them from mating with females but does not kill them. It is to be applied in two ways: For urban infestations and for small and isolated areas, a ground treatment tool using pheromone twist ties is being used. Aerial application may be used for heavily infested, inaccessible areas (heavily forested and agricultural).
3. A **male moth attractant treatment** using small amounts of pheromone and pesticide (permethrin) in a thick matrix, which is applied to poles and trees, is also being considered for urban and nonurban areas.
4. The proposed biological control at present is the release of an **egg parasitoid**, which is a native wasp (*Trichogramma* spp.). This technique may be used in all infested areas.
5. **Foliar ground treatments** targeting the insect larvae would use the biologically-based pesticide *Bacillus thuringiensis kurstaki* (Btk) or Spinosad, an insecticide. This method would be by ground application in heavily infested areas.

New formulations of the mating disruption pheromone are now available and have been tested to determine which formulation is the most efficacious against LBAM. For ground applications to trees and utility poles on public and private property and aerial application of pheromone in remote areas, the treatment area is a 1.5 mile radius around each LBAM detection, with a projected 30 to 90 day spray interval. For ground treatment using twist ties, 250 twist ties per acre in a 200 meter radius around each LBAM detection are applied and subsequently replaced every three to six months. Treatment areas may be adjusted to provide the public with identifiable treatment boundaries. After two life cycles of treatment without any LBAM detections, treatment would cease. Post-treatment monitoring traps will remain in place for one additional life cycle.

The LBAM Program, in consultation with the California Department of Pesticide Regulation, will monitor pesticide applications for quality control, as well as effectiveness. The Department will engage in additional consultations with state agencies on rare, threatened and endangered species and any sensitive environmental sites in the proposed treatment areas.

### **Scope of the PEIR Analysis**

The No Project Alternative would be to continue and expand quarantine and detection and inspection activities but without the application of the pheromone or any other insecticides on an areawide basis by USDA or the Department. Restrictions on domestic and foreign trade would increase. Private individuals may utilize approved insecticides to control LBAM, but without a regional coordinated treatment program, LBAM would flourish in existing areas and spread to surrounding areas, with associated environmental effects.

A range of project alternatives is being evaluated by the Department in addition to the No Project Alternative and will be discussed in the PEIR. These project treatment alternatives include other types of synthetic pheromones (and their formulations) effective in treating LBAM.

The PEIR will evaluate potential environmental impacts (direct, indirect and cumulative) and focus on the following environmental resources and concerns: human health, ecological health, agricultural economics and land use, non-agricultural land uses, public services/hazard response, water quality (surface and ground waters), air quality, climate change (greenhouse gas production), noise, and biological resources, including cumulative effects. The human and ecological risk assessments are expected to be technical appendices to the PEIR with important results summarized in the appropriate sections of the PEIR.

Environmental issues raised during public scoping will be incorporated into a public scoping report and made available to the public and preparers of the PEIR. These concerns may be addressed in studies and reports prepared independently of the PEIR process. The Department has commissioned preparation of toxicological studies on the four LBAM formulations under study and has engaged the California Department of Fish and Game to conduct additional tests of the formulations on freshwater and marine organisms.

### **For More Information**

Additional information is located at <http://www.cdfr.ca.gov/phpps/PDEP/lbam/envimpactrpt.html>.

Attachment:  
LA Valley College Map

